SEQUENCE LISTING

<110> Nakajima, Toshihiro
      Amano, Tetsuya
      Yagashita, Naoko

<120> THERAPEUTIC PREPARATION FOR HEMATOPOIETIC DISEASE

<130> BHP-A0301P

<140> US 10/568,033
<141> 2006-02-10

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<151> 2004-08-13

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gcgggctcgc ggcgctgggt tcctggtctc cgggccaggg ca atg ttc cgc acg   414
                                               Met Phe Arg Thr
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Ala Val Met Met Ala Ala Ser Leu Ala Leu Thr Gly Ala Val Val Ala
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cac gcc tac tac ctc aaa cac cag ttc tac ccc act gtg gtg tac ctg   510
His Ala Tyr Tyr Leu Lys His Gln Phe Tyr Pro Thr Val Val Tyr Leu
          25   30   35

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acc aag tcc agc ccc agc atg gca gtc ctg tac atc cag gcc ttt gtc    558
Thr Lys Ser Ser Pro Ser Met Ala Val Leu Tyr Ile Gln Ala Phe Val
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ctt gtc ttc ctt ctg ggc aag gtg atg ggc aag gtg ttc ttt ggg caa    606
Leu Val Phe Leu Leu Gly Lys Val Met Gly Lys Val Phe Phe Gly Gln
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ctg agg gca gca gag atg gag cac ctt ctg gaa cgt tcc tgg tac gcc    654
Leu Arg Ala Ala Glu Met Glu His Leu Leu Glu Arg Ser Trp Tyr Ala
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gtc aca gag act tgt ctg gcc ttc acc gtt ttt cgg gat gac ttc agc    702
Val Thr Glu Thr Cys Leu Ala Phe Thr Val Phe Arg Asp Asp Phe Ser
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ccc cgc ttt gtt gca ctc ttc act ctt ctt ctc ttc ctc aaa tgt ttc    750
Pro Arg Phe Val Ala Leu Phe Thr Leu Leu Leu Phe Leu Lys Cys Phe
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cac tgg ctg gct gag gac cgt gtg gac ttt atg gaa cgc agc ccc aac    798
His Trp Leu Ala Glu Asp Arg Val Asp Phe Met Glu Arg Ser Pro Asn
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atc tcc tgg ctc ttt cac tgc cgc att gtc tct ctt atg ttc ctc ctg    846
Ile Ser Trp Leu Phe His Cys Arg Ile Val Ser Leu Met Phe Leu Leu
            135                 140                 145

ggc atc ctg gac ttc ctc ttc gtc agc cac gcc tat cac agc atc ctg    894
Gly Ile Leu Asp Phe Leu Phe Val Ser His Ala Tyr His Ser Ile Leu
    150                 155                 160

acc cgt ggg gcc tct gtg cag ctg gtg ttt ggc ttt gag tat gcc atc    942
Thr Arg Gly Ala Ser Val Gln Leu Val Phe Gly Phe Glu Tyr Ala Ile
165                 170                 175                 180

ctg atg acg atg gtg ctc acc atc ttc atc aag tat gtg ctg cac tcc    990
Leu Met Thr Met Val Leu Thr Ile Phe Ile Lys Tyr Val Leu His Ser
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gtg gac ctc cag agt gag aac ccc tgg gac aac aag gct gtg tac atg   1038
Val Asp Leu Gln Ser Glu Asn Pro Trp Asp Asn Lys Ala Val Tyr Met
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ctc tac aca gag ctg ttt aca ggc ttc atc aag gtt ctg ctg tac atg   1086
Leu Tyr Thr Glu Leu Phe Thr Gly Phe Ile Lys Val Leu Leu Tyr Met
            215                 220                 225

gcc ttc atg acc atc atg atc aag gtg cac acc ttc cca ctc ttt gcc   1134
Ala Phe Met Thr Ile Met Ile Lys Val His Thr Phe Pro Leu Phe Ala
        230                 235                 240

atc cgg ccc atg tac ctg gcc atg aga cag ttc aag aaa gct gtg aca   1182
Ile Arg Pro Met Tyr Leu Ala Met Arg Gln Phe Lys Lys Ala Val Thr
245                 250                 255                 260
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gat gcc atc atg tct cgc cga gcc atc cgc aac atg aac acc ctg tat    1230
Asp Ala Ile Met Ser Arg Arg Ala Ile Arg Asn Met Asn Thr Leu Tyr
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cca gat gcc acc cca gag gag ctc cag gca atg gac aat gtc tgc atc    1278
Pro Asp Ala Thr Pro Glu Glu Leu Gln Ala Met Asp Asn Val Cys Ile
            280             285             290

atc tgc cga gaa gag atg gtg act ggt gcc aag aga ctg ccc tgc aac    1326
Ile Cys Arg Glu Glu Met Val Thr Gly Ala Lys Arg Leu Pro Cys Asn
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cac att ttc cat acc agc tgc ctg cgc tcc tgg ttc cag cgg cag cag    1374
His Ile Phe His Thr Ser Cys Leu Arg Ser Trp Phe Gln Arg Gln Gln
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acc tgc ccc acc tgc cgt atg gat gtc ctt cgt gca tcg ctg cca gcg    1422
Thr Cys Pro Thr Cys Arg Met Asp Val Leu Arg Ala Ser Leu Pro Ala
325             330             335             340

cag tca cca cca ccc ccg gag cct gcg gat cag ggg cca ccc cct gcc    1470
Gln Ser Pro Pro Pro Pro Glu Pro Ala Asp Gln Gly Pro Pro Pro Ala
            345             350             355

ccc cac ccc cca cca ctc ttg cct cag ccc ccc aac ttc ccc cag ggc    1518
Pro His Pro Pro Pro Leu Leu Pro Gln Pro Pro Asn Phe Pro Gln Gly
            360             365             370

ctc ctg cct cct ttt cct cca ggc atg ttc cca ctg tgg ccc ccc atg    1566
Leu Leu Pro Pro Phe Pro Pro Gly Met Phe Pro Leu Trp Pro Pro Met
            375             380             385

ggc ccc ttt cca cct gtc ccg cct ccc ccc agc tca gga gag gct gtg    1614
Gly Pro Phe Pro Pro Val Pro Pro Pro Ser Ser Gly Glu Ala Val
            390             395             400

gct cct cca tcc acc agt gca gca gcc ctt tct cgg ccc agt gga gca    1662
Ala Pro Pro Ser Thr Ser Ala Ala Ala Leu Ser Arg Pro Ser Gly Ala
405             410             415             420

gct aca acc aca gct gct ggc acc agt gct act gct gct tct gcc aca    1710
Ala Thr Thr Thr Ala Ala Gly Thr Ser Ala Thr Ala Ala Ser Ala Thr
            425             430             435

gca tct ggc cca ggc tct ggc tct gcc cca gag gct ggc cct gcc cct    1758
Ala Ser Gly Pro Gly Ser Gly Ser Ala Pro Glu Ala Gly Pro Ala Pro
            440             445             450

ggt ttc ccc ttc cct cct ccc tgg atg ggt atg ccc ctg cct cca ccc    1806
Gly Phe Pro Phe Pro Pro Pro Trp Met Gly Met Pro Leu Pro Pro Pro
            455             460             465

ttt gcc ttc ccc cca atg cct gtg ccc cct gcg ggc ttt gct ggg ctg    1854
Phe Ala Phe Pro Pro Met Pro Val Pro Pro Ala Gly Phe Ala Gly Leu
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Thr Pro Glu Glu Leu Arg Ala Leu Glu Gly His Glu Arg Gln His Leu
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gag gcc cgg ctg cag agc ctg cgt aac atc cac aca ctg ctg gac gcc    1950
Glu Ala Arg Leu Gln Ser Leu Arg Asn Ile His Thr Leu Leu Asp Ala
            505             510             515

gcc atg ctg cag atc aac cag tac ctc acc gtg ctg gcc tcc ttg ggg    1998
Ala Met Leu Gln Ile Asn Gln Tyr Leu Thr Val Leu Ala Ser Leu Gly
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ccc ccc cgg cct gcc act tca gtc aac tcc act gag ggg act gcc act    2046
Pro Pro Arg Pro Ala Thr Ser Val Asn Ser Thr Glu Gly Thr Ala Thr
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aca gtt gtt gct gct gcc tcc tcc acc agc atc cct agc tca gag gcc    2094
Thr Val Val Ala Ala Ala Ser Ser Thr Ser Ile Pro Ser Ser Glu Ala
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acg acc cca acc cca gga gcc tcc cca cca gcc cct gaa atg gaa agg    2142
Thr Thr Pro Thr Pro Gly Ala Ser Pro Pro Ala Pro Glu Met Glu Arg
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cct cca gct cct gag tca gtg ggc aca gag gag atg cct gag gat gga    2190
Pro Pro Ala Pro Glu Ser Val Gly Thr Glu Glu Met Pro Glu Asp Gly
            585             590             595

gag ccc gat gca gca gag ctc cgc cgg cgc cgc ctg cag aag ctg gag    2238
Glu Pro Asp Ala Ala Glu Leu Arg Arg Arg Arg Leu Gln Lys Leu Glu
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tct cct gtt gcc cac tga cactgcccca gcccagcccc agcctctgct           2286
Ser Pro Val Ala His
            615

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Val Val Tyr Leu Thr Lys Ser Ser Pro Ser Met Ala Val Leu Tyr Ile
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Gln Ala Phe Val Leu Val Phe Leu Leu Gly Lys Val Met Gly Lys Val
       50   55   60

Phe Phe Gly Gln Leu Arg Ala Ala Glu Met Glu His Leu Leu Glu Arg
 65   70   75   80

Ser Trp Tyr Ala Val Thr Glu Thr Cys Leu Ala Phe Thr Val Phe Arg
               85   90   95

Asp Asp Phe Ser Pro Arg Phe Val Ala Leu Phe Thr Leu Leu Leu Phe
               100   105   110

Leu Lys Cys Phe His Trp Leu Ala Glu Asp Arg Val Asp Phe Met Glu
           115   120   125

Arg Ser Pro Asn Ile Ser Trp Leu Phe His Cys Arg Ile Val Ser Leu
       130   135   140

Met Phe Leu Leu Gly Ile Leu Asp Phe Leu Phe Val Ser His Ala Tyr
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His Ser Ile Leu Thr Arg Gly Ala Ser Val Gln Leu Val Phe Gly Phe
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Glu Tyr Ala Ile Leu Met Thr Met Val Leu Thr Ile Phe Ile Lys Tyr
              180             185             190

Val Leu His Ser Val Asp Leu Gln Ser Glu Asn Pro Trp Asp Asn Lys
        195             200             205

Ala Val Tyr Met Leu Tyr Thr Glu Leu Phe Thr Gly Phe Ile Lys Val
    210             215             220

Leu Leu Tyr Met Ala Phe Met Thr Ile Met Ile Lys Val His Thr Phe
225             230             235             240

Pro Leu Phe Ala Ile Arg Pro Met Tyr Leu Ala Met Arg Gln Phe Lys
              245             250             255

Lys Ala Val Thr Asp Ala Ile Met Ser Arg Arg Ala Ile Arg Asn Met
              260             265             270

Asn Thr Leu Tyr Pro Asp Ala Thr Pro Glu Glu Leu Gln Ala Met Asp
        275             280             285

Asn Val Cys Ile Ile Cys Arg Glu Glu Met Val Thr Gly Ala Lys Arg
    290             295             300

Leu Pro Cys Asn His Ile Phe His Thr Ser Cys Leu Arg Ser Trp Phe
305             310             315             320

Gln Arg Gln Gln Thr Cys Pro Thr Cys Arg Met Asp Val Leu Arg Ala
              325             330             335

Ser Leu Pro Ala Gln Ser Pro Pro Pro Glu Pro Ala Asp Gln Gly
              340             345             350

Pro Pro Pro Ala Pro His Pro Pro Pro Leu Leu Pro Gln Pro Pro Asn
        355             360             365

Phe Pro Gln Gly Leu Leu Pro Pro Phe Pro Pro Gly Met Phe Pro Leu
    370             375             380

Trp Pro Pro Met Gly Pro Phe Pro Pro Val Pro Pro Pro Ser Ser
385             390             395             400

Gly Glu Ala Val Ala Pro Pro Ser Thr Ser Ala Ala Ala Leu Ser Arg
              405             410             415

Pro Ser Gly Ala Ala Thr Thr Thr Ala Ala Gly Thr Ser Ala Thr Ala
              420             425             430

Ala Ser Ala Thr Ala Ser Gly Pro Gly Ser Gly Ser Ala Pro Glu Ala
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Gly Pro Ala Pro Gly Phe Pro Phe Pro Pro Pro Trp Met Gly Met Pro
    450             455             460

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Leu Pro Pro Pro Phe Ala Phe Pro Pro Met Pro Val Pro Pro Ala Gly
465         470             475             480

Phe Ala Gly Leu Thr Pro Glu Glu Leu Arg Ala Leu Glu Gly His Glu
            485             490             495

Arg Gln His Leu Glu Ala Arg Leu Gln Ser Leu Arg Asn Ile His Thr
        500             505             510

Leu Leu Asp Ala Ala Met Leu Gln Ile Asn Gln Tyr Leu Thr Val Leu
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Ala Ser Leu Gly Pro Pro Arg Pro Ala Thr Ser Val Asn Ser Thr Glu
    530             535             540

Gly Thr Ala Thr Thr Val Val Ala Ala Ala Ser Ser Thr Ser Ile Pro
545             550             555             560

Ser Ser Glu Ala Thr Thr Pro Thr Pro Gly Ala Ser Pro Pro Ala Pro
            565             570             575

Glu Met Glu Arg Pro Pro Ala Pro Glu Ser Val Gly Thr Glu Glu Met
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Met Phe Arg Thr Ala Val Met Met Ala Ala Ser Leu Ala Leu Thr Gly
 1               5                  10                  15

gct gtg gtg gct cac gcc tac tac ctc aaa cac cag ttc tac ccc act  155
Ala Val Val Ala His Ala Tyr Tyr Leu Lys His Gln Phe Tyr Pro Thr
            20                  25                  30

gtg gtg tac ctg acc aag tcc agc ccc agc atg gca gtc ctg tac atc  203
Val Val Tyr Leu Thr Lys Ser Ser Pro Ser Met Ala Val Leu Tyr Ile
        35                  40                  45
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cag gcc ttt gtc ctt gtc ttc ctt ctg ggc aag gtg atg ggc aag gtg   251
Gln Ala Phe Val Leu Val Phe Leu Leu Gly Lys Val Met Gly Lys Val
    50   55   60

ttc ttt ggg caa ctg agg gca gca gag atg gag cac ctt ctg gaa cgt   299
Phe Phe Gly Gln Leu Arg Ala Ala Glu Met Glu His Leu Leu Glu Arg
 65   70   75   80

tcc tgg tac gcc gtc aca gag act tgt ctg gcc ttc acc gtt ttt cgg   347
Ser Trp Tyr Ala Val Thr Glu Thr Cys Leu Ala Phe Thr Val Phe Arg
                85   90   95

gat gac ttc agc ccc cgc ttt gtt gca ctc ttc act ctt ctt ctc ttc   395
Asp Asp Phe Ser Pro Arg Phe Val Ala Leu Phe Thr Leu Leu Leu Phe
            100   105   110

ctc aaa tgt ttc cac tgg ctg gct gag gac cgt gtg gac ttt atg gaa   443
Leu Lys Cys Phe His Trp Leu Ala Glu Asp Arg Val Asp Phe Met Glu
        115   120   125

cgc agc ccc aac atc tcc tgg ctc ttt cac tgc cgc att gtc tct ctt   491
Arg Ser Pro Asn Ile Ser Trp Leu Phe His Cys Arg Ile Val Ser Leu
    130   135   140

atg ttc ctc ctg ggc atc ctg gac ttc ctc ttc gtc agc cac gcc tat   539
Met Phe Leu Leu Gly Ile Leu Asp Phe Leu Phe Val Ser His Ala Tyr
145   150   155   160

cac agc atc ctg acc cgt ggg gcc tct gtg cag ctg gtg ttt ggc ttt   587
His Ser Ile Leu Thr Arg Gly Ala Ser Val Gln Leu Val Phe Gly Phe
                165   170   175

gag tat gcc atc ctg atg acg atg gtg ctc acc atc ttc atc aag tat   635
Glu Tyr Ala Ile Leu Met Thr Met Val Leu Thr Ile Phe Ile Lys Tyr
            180   185   190

gtg ctg cac tcc gtg gac ctc cag agt gag aac ccc tgg gac aac aag   683
Val Leu His Ser Val Asp Leu Gln Ser Glu Asn Pro Trp Asp Asn Lys
        195   200   205

gct gtg tac atg ctc tac aca gag ctg ttt aca ggc ttc atc aag gtt   731
Ala Val Tyr Met Leu Tyr Thr Glu Leu Phe Thr Gly Phe Ile Lys Val
    210   215   220

ctg ctg tac atg gcc ttc atg acc atc atg atc aag gtg cac acc ttc   779
Leu Leu Tyr Met Ala Phe Met Thr Ile Met Ile Lys Val His Thr Phe
225   230   235   240

cca ctc ttt gcc atc cgg ccc atg tac ctg gcc atg aga cag ttc aag   827
Pro Leu Phe Ala Ile Arg Pro Met Tyr Leu Ala Met Arg Gln Phe Lys
            245   250   255

aaa gct gtg aca gat gcc atc atg tct cgc cga gcc atc cgc aac atg   875
Lys Ala Val Thr Asp Ala Ile Met Ser Arg Arg Ala Ile Arg Asn Met
            260   265   270

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Asn Thr Leu Tyr Pro Asp Ala Thr Pro Glu Glu Leu Gln Ala Met Asp
        275                 280                 285

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Asn Val Cys Ile Ile Cys Arg Glu Glu Met Val Thr Gly Ala Lys Arg
        290                 295                 300

ctg ccc tgc aac cac att ttc cat acc agc tgc ctg cgc tcc tgg ttc   1019
Leu Pro Cys Asn His Ile Phe His Thr Ser Cys Leu Arg Ser Trp Phe
305                 310                 315                 320

cag cgg cag cag acc tgc ccc acc tgc cgt atg gat gtc ctt cgt gca   1067
Gln Arg Gln Gln Thr Cys Pro Thr Cys Arg Met Asp Val Leu Arg Ala
                325                 330                 335

tcg ctg cca gcg cag tca cca cca ccc ccg gag cct gcg gat cag ggg   1115
Ser Leu Pro Ala Gln Ser Pro Pro Pro Glu Pro Ala Asp Gln Gly
            340                 345                 350

cca ccc cct gcc ccc cac ccc cca cca ctc ttg cct cag ccc ccc aac   1163
Pro Pro Pro Ala Pro His Pro Pro Pro Leu Leu Pro Gln Pro Pro Asn
        355                 360                 365

ttc ccc cag ggc ctc ctg cct cct ttt cct cca ggc atg ttc cca ctg   1211
Phe Pro Gln Gly Leu Leu Pro Pro Phe Pro Pro Gly Met Phe Pro Leu
    370                 375                 380

tgg ccc ccc atg ggc ccc ttt cca cct gtc ccg cct ccc ccc agc tca   1259
Trp Pro Pro Met Gly Pro Phe Pro Pro Val Pro Pro Pro Ser Ser
385                 390                 395                 400

gga gag gct gtg gct cct cca tcc acc agt gca gcc ctt tct cgg ccc   1307
Gly Glu Ala Val Ala Pro Pro Ser Thr Ser Ala Ala Leu Ser Arg Pro
            405                 410                 415

agt gga gca gct aca acc aca gct gct ggc acc agt gct act gct gct   1355
Ser Gly Ala Ala Thr Thr Thr Ala Ala Gly Thr Ser Ala Thr Ala Ala
            420                 425                 430

tct gcc aca gca tct ggc cca ggc tct ggc tct gcc cca gag gct ggc   1403
Ser Ala Thr Ala Ser Gly Pro Gly Ser Gly Ser Ala Pro Glu Ala Gly
            435                 440                 445

cct gcc cct ggt ttc ccc ttc cct cct ccc tgg atg ggt atg ccc ctg   1451
Pro Ala Pro Gly Phe Pro Phe Pro Pro Pro Trp Met Gly Met Pro Leu
    450                 455                 460

cct cca ccc ttt gcc ttc ccc cca atg cct gtg ccc cct gcg ggc ttt   1499
Pro Pro Pro Phe Ala Phe Pro Pro Met Pro Val Pro Pro Ala Gly Phe
465                 470                 475                 480

gct ggg ctg acc cca gag gag cta cga gct ctg gag ggc cat gag cgg   1547
Ala Gly Leu Thr Pro Glu Glu Leu Arg Ala Leu Glu Gly His Glu Arg
                485                 490                 495
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cag cac ctg gag gcc cgg ctg cag agc ctg cgt aac atc cac aca ctg    1595
Gln His Leu Glu Ala Arg Leu Gln Ser Leu Arg Asn Ile His Thr Leu
        500                 505                 510

ctg gac gcc gcc atg ctg cag atc aac cag tac ctc acc gtg ctg gcc    1643
Leu Asp Ala Ala Met Leu Gln Ile Asn Gln Tyr Leu Thr Val Leu Ala
        515                 520                 525

tcc ttg ggg ccc ccc cgg cct gcc act tca gtc aac tcc act gag ggg    1691
Ser Leu Gly Pro Pro Arg Pro Ala Thr Ser Val Asn Ser Thr Glu Gly
    530                 535                 540

act gcc act aca gtt gtt gct gct gcc tcc tcc acc agc atc cct agc    1739
Thr Ala Thr Thr Val Val Ala Ala Ala Ser Ser Thr Ser Ile Pro Ser
545                 550                 555                 560

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Ser Glu Ala Thr Thr Pro Thr Pro Gly Ala Ser Pro Pro Ala Pro Glu
                565                 570                 575

atg gaa agg cct cca gct cct gag tca gtg ggc aca gag gag atg cct    1835
Met Glu Arg Pro Pro Ala Pro Glu Ser Val Gly Thr Glu Glu Met Pro
            580                 585                 590

gag gat gga gag ccc gat gca gca gag ctc cgc cgg cgc cgc ctg cag    1883
Glu Asp Gly Glu Pro Asp Ala Ala Glu Leu Arg Arg Arg Arg Leu Gln
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Lys Leu Glu Ser Pro Val Ala His
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Met Phe Arg Thr Ala Val Met Met Ala Ala Ser Leu Ala Leu Thr Gly
  1               5                  10                  15

Ala Val Val Ala His Ala Tyr Tyr Leu Lys His Gln Phe Tyr Pro Thr
                 20                  25                  30

Val Val Tyr Leu Thr Lys Ser Ser Pro Ser Met Ala Val Leu Tyr Ile
                 35                  40                  45

Gln Ala Phe Val Leu Val Phe Leu Leu Gly Lys Val Met Gly Lys Val
     50                  55                  60

Phe Phe Gly Gln Leu Arg Ala Ala Glu Met Glu His Leu Leu Glu Arg
 65                  70                  75                  80

Ser Trp Tyr Ala Val Thr Glu Thr Cys Leu Ala Phe Thr Val Phe Arg
                 85                  90                  95

Asp Asp Phe Ser Pro Arg Phe Val Ala Leu Phe Thr Leu Leu Leu Phe
                100                 105                 110

Leu Lys Cys Phe His Trp Leu Ala Glu Asp Arg Val Asp Phe Met Glu
                115                 120                 125

Arg Ser Pro Asn Ile Ser Trp Leu Phe His Cys Arg Ile Val Ser Leu
            130                 135                 140

Met Phe Leu Leu Gly Ile Leu Asp Phe Leu Phe Val Ser His Ala Tyr
145                 150                 155                 160

His Ser Ile Leu Thr Arg Gly Ala Ser Val Gln Leu Val Phe Gly Phe
                165                 170                 175

Glu Tyr Ala Ile Leu Met Thr Met Val Leu Thr Ile Phe Ile Lys Tyr
                180                 185                 190
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Val Leu His Ser Val Asp Leu Gln Ser Glu Asn Pro Trp Asp Asn Lys
        195             200             205

Ala Val Tyr Met Leu Tyr Thr Glu Leu Phe Thr Gly Phe Ile Lys Val
    210             215             220

Leu Leu Tyr Met Ala Phe Met Thr Ile Met Ile Lys Val His Thr Phe
225             230             235             240

Pro Leu Phe Ala Ile Arg Pro Met Tyr Leu Ala Met Arg Gln Phe Lys
            245             250             255

Lys Ala Val Thr Asp Ala Ile Met Ser Arg Arg Ala Ile Arg Asn Met
            260             265             270

Asn Thr Leu Tyr Pro Asp Ala Thr Pro Glu Glu Leu Gln Ala Met Asp
            275             280             285

Asn Val Cys Ile Ile Cys Arg Glu Glu Met Val Thr Gly Ala Lys Arg
    290             295             300

Leu Pro Cys Asn His Ile Phe His Thr Ser Cys Leu Arg Ser Trp Phe
305             310             315             320

Gln Arg Gln Gln Thr Cys Pro Thr Cys Arg Met Asp Val Leu Arg Ala
            325             330             335

Ser Leu Pro Ala Gln Ser Pro Pro Pro Glu Pro Ala Asp Gln Gly
            340             345             350

Pro Pro Pro Ala Pro His Pro Pro Pro Leu Leu Pro Gln Pro Pro Asn
            355             360             365

Phe Pro Gln Gly Leu Leu Pro Pro Phe Pro Pro Gly Met Phe Pro Leu
    370             375             380

Trp Pro Pro Met Gly Pro Phe Pro Pro Val Pro Pro Pro Ser Ser
385             390             395             400

Gly Glu Ala Val Ala Pro Pro Ser Thr Ser Ala Ala Leu Ser Arg Pro
            405             410             415

Ser Gly Ala Ala Thr Thr Thr Ala Ala Gly Thr Ser Ala Thr Ala Ala
            420             425             430

Ser Ala Thr Ala Ser Gly Pro Gly Ser Gly Ser Ala Pro Glu Ala Gly
            435             440             445

Pro Ala Pro Gly Phe Pro Phe Pro Pro Pro Trp Met Gly Met Pro Leu
    450             455             460

Pro Pro Pro Phe Ala Phe Pro Pro Met Pro Val Pro Pro Ala Gly Phe
465             470             475             480
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Ala Gly Leu Thr Pro Glu Glu Leu Arg Ala Leu Glu Gly His Glu Arg
            485             490             495

Gln His Leu Glu Ala Arg Leu Gln Ser Leu Arg Asn Ile His Thr Leu
        500             505             510

Leu Asp Ala Ala Met Leu Gln Ile Asn Gln Tyr Leu Thr Val Leu Ala
        515             520             525

Ser Leu Gly Pro Pro Arg Pro Ala Thr Ser Val Asn Ser Thr Glu Gly
    530             535             540

Thr Ala Thr Thr Val Val Ala Ala Ala Ser Ser Thr Ser Ile Pro Ser
545             550             555             560

Ser Glu Ala Thr Thr Pro Thr Pro Gly Ala Ser Pro Pro Ala Pro Glu
            565             570             575

Met Glu Arg Pro Pro Ala Pro Glu Ser Val Gly Thr Glu Glu Met Pro
            580             585             590

Glu Asp Gly Glu Pro Asp Ala Ala Glu Leu Arg Arg Arg Arg Leu Gln
        595             600             605

Lys Leu Glu Ser Pro Val Ala His
    610             615
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